

**What is claimed:**

1 1. A method of calculating a purchase total for a transaction, the method comprising  
2 the steps of:

3 receiving a plurality of product identifiers, each of the product identifiers  
4 representing a respective product to be purchased;

5 calculating an initial purchase total for the transaction based on respective first  
6 prices for each of the products to be purchased;

7 determining whether the initial purchase total is at least equal to a predetermined  
8 threshold purchase total; and

9 if the initial purchase total is at least equal to the predetermined threshold  
10 purchase total, calculating a reduced purchase total for the transaction based on  
11 respective second prices for each of the products to be purchased, at least one of the  
12 respective second prices being lower than the corresponding first price for the product to  
13 be purchased, wherein at least one of the respective second prices is calculated based on  
14 at least one of (i) the first price, (ii) a cost associated with the corresponding product, and  
15 (iii) a minimum profit amount.

1 2. A method according to claim 1, further comprising the step of retrieving the first  
2 and second prices from a database.

1 3. A method according to claim 1, wherein the retrieving step is completed before  
2 the step of calculating the initial purchase total.

1 4. A method according to claim 2, wherein a portion of the retrieving step is  
2 performed after the step of calculating the initial purchase total.

1 5. A method according to claim 1, further comprising the step of applying the  
2 reduced purchase total as a final purchase total for the transaction.

- 1 6. A method according to claim 1, further comprising the steps of:  
2 determining whether the reduced purchase total is less than the predetermined  
3 threshold purchase total; and  
4 if the reduced purchase total is less than the predetermined threshold purchase  
5 total, applying the initial purchase total as a final purchase total for the transaction.
- 1 7. A method according to claim 1, wherein the receiving step includes entering the  
2 product identifiers into a point of sale terminal.
- 1 8. A method according to claim 7, wherein the entering step includes using a bar  
2 code reader to read respective bar codes on the products to be purchased.
- 1 9. A method according to claim 1, wherein the receiving step includes receiving  
2 product identifiers entered by a customer via a Web site.
- 1 10. A method according to claim 1, wherein the receiving step includes entering  
2 product identifiers into a computer terminal in response to communication with a  
3 customer.
- 1 11. A method according to claim 1, further comprising the step of displaying the first  
2 and second prices in a retail store.
- 1 12. A method according to claim 1, further comprising the step of displaying in a  
2 retail store the first prices and respective discount amounts which define the second  
3 prices.
- 1 13. A method according to claim 1, further comprising the step of displaying in a  
2 retail store the first prices and respective discount percentages which define the second  
3 prices.
- 1 14. A method according to claim 1, further comprising the step of printing the first  
2 and second prices in a catalog.

433  
continued

1 15. A method according to claim 1, further comprising the step of displaying the first  
2 and second prices on a monitor component of a customer's computer in response to the  
3 customer accessing a Web site.

1 16. A method of calculating a purchase total for a transaction, the method comprising  
2 the steps of:

3 receiving a plurality of product identifiers, each of the product identifiers  
4 representing a respective product to be purchased;

5 determining whether the transaction satisfies a qualification criterion; and

6 on the basis of the determining step, selecting between a first procedure for  
7 calculating the purchase total for the transaction and a second procedure for calculating  
8 the purchase total for the transaction, the first procedure including totaling respective  
9 first prices for each of the products to be purchased, the second procedure including  
10 totaling respective second prices for each of the products to be purchased, at least one of  
11 the respective second prices being lower than the corresponding first prices for the  
12 respective products to be purchased.

1 17. The method of claim 16, wherein the qualification criterion is selected from the  
2 group consisting of:

3 (a) a purchase total for the transaction calculated according to the first  
4 procedure;

5 (b) a purchase total for the transaction calculated according to the second  
6 procedure;

7 (c) a sum of purchase totals for at least one transaction made by a customer  
8 during a first predetermined period of time, wherein the at least one transaction is made  
9 by the customer who is requesting the transaction for which the purchase total is  
10 calculated;

11 (d) an average of purchase totals for a plurality of transactions made by a  
12 customer who is requesting the transaction during a second predetermined period of time;

13 (e) a sum of purchase totals for a plurality of transactions made during a third  
14 predetermined period of time by a group of customers, one of whom is requesting the  
15 transaction;

16 (f) an average of purchase totals for a plurality of transactions made during a  
17 fourth predetermined period of time by a group of customers, one of whom is requesting  
18 the transaction; and

19 (g) a total number of products having a particular brand among the products  
20 to be purchased represented by the received product identifiers

1 18. A method according to claim 16, wherein at least some of the steps are carried out  
2 by a POS terminal.

1 19. A method according to claim 16, wherein at least some of the steps are carried out  
2 by a Web server computer.

1 20. A method of calculating a purchase total for a transaction, the method comprising  
2 the steps of:

3 receiving a plurality of product identifiers, each of the product identifiers  
4 representing a respective product to be purchased;

5 retrieving from a database a respective first price for each of the products to be  
6 purchased;

7 calculating an initial purchase total for the transaction on the basis of the retrieved  
8 first prices;

9 determining whether the initial purchase total is at least equal to a predetermined  
10 threshold purchase total; and

11 if the initial purchase total is at least equal to the predetermined threshold  
12 purchase total:

13 retrieving from the database a respective second price for each of the products to  
14 be purchased, at least one of the respective second prices being lower than the  
15 corresponding first price for the product to be purchased; and

16 calculating a reduced purchased price for the transaction based on the retrieved  
17 second prices.

1 21. A method of controlling a point of sale terminal, the method comprising the steps  
2 of:

3 receiving a plurality of product identifiers, each of the product identifiers representing a  
4 respective product to be purchased;  
5 retrieving from a database a respective first price for each of the products to be  
6 purchased;  
7 calculating an initial purchase total for a transaction on the basis of the retrieved  
8 first prices;  
9 comparing the initial purchase total for the transaction with a plurality of  
10 predetermined threshold purchase totals; and  
11 if the initial purchase total is at least equal to at least one of the predetermined  
12 threshold purchase totals:  
13 retrieving from the database a respective second price for each of the products to  
14 be purchased, the second prices being included in a pricing tier which corresponds to a  
15 highest one of the predetermined threshold purchase totals which does not exceed the  
16 initial price for the transaction, at least one of the second prices being lower than the  
17 corresponding first price for the product to be purchased; and  
18 calculating a reduced purchase total for the transaction on the basis of the  
19 retrieved second prices.

a

1 22. A method according to claim 21, wherein the plurality of predetermined threshold  
2 purchase totals includes three threshold purchase totals.

1 23. A method according to claim 21, wherein the receiving step includes reading bar  
2 codes using a bar code reader connected to the point of sale terminal.

1 24. A method according to claim 21, further comprising storing the first and second  
2 prices in a server computer connected to the point of sale terminal.

1 25. A method according to claim 21, further comprising displaying on store shelves  
2 price information corresponding to the pricing tiers.

1 26. A method of operating a shopping Web site, the method comprising the steps of:  
2 receiving at a Web server computer an access attempt from a customer device used by a

3 customer;

4 responding to the access attempt by sending to the customer device display data,  
5 the display data representing information to be displayed on a monitor component of the  
6 customer device, the information to be displayed on the monitor component including:

7 (a) a plurality of product entries, each of the product entries including (i)  
8 product information indicative of a product available for sale via the Web site and (ii)  
9 pricing information indicative of a plurality of prices applicable to the product indicated  
10 by the product information of the respective product entry, each of the prices  
11 corresponding to a respective pricing tier; and

12 (b) a monetary amount that indicates to the customer an additional amount to  
13 be spent to qualify for one of the respective pricing tiers.

1 27. A method according to claim 26, further comprising the steps of:

2 receiving at the Web server computer a product identifier indicated by the  
3 customer device, the product identifier representing a product selected for purchase by  
4 the customer; and <sup>a</sup>

5 sending updated display data to the customer device to update the additional  
6 amount to be spent to qualify for the respective pricing tiers.

1 28. A method according to claim 26 wherein the receiving step includes receiving  
2 data transmitted via the Internet.

1 29. A Web server computer arranged to host a shopping Web site and programmed  
2 to:

3 receive an access attempt from a customer device used by a customer; and

4 respond to the access attempt by sending to the customer device display data, the  
5 display data representing information to be displayed on a monitor component of the  
6 customer device, the information to be displayed on the monitor component including:

7 (a) a plurality of product entries, each of the product entries including (i)  
8 product information indicative of a product available for sale via the Web site and (ii)  
9 pricing information indicative of a plurality of prices applicable to the product indicated  
10 by the product information of the respective product entry, each of the prices

11 corresponding to a respective pricing tier; and

12 (b) a monetary amount that indicates to the customer an additional amount to  
13 be spent to qualify for one of the respective pricing tiers.

1 30. A method of operating a catalog order-taking facility, comprising the steps of:

2 providing an order-taking system, the system including database means for  
3 storing a database and a plurality of customer service stations connected to the database  
4 means, the database including a plurality of product entries, each of the product entries  
5 including data indicating a product available for sale from a catalog and pricing  
6 information for the product, the pricing information including a first price for the product  
7 and a second price for the product which is lower than the first price;

8 receiving at the facility a telephone call from a customer;

9 during the telephone call, receiving communications from the customer indicating  
10 at least one initial product that the customer desires to purchase from the catalog, thereby  
11 receiving an indication of a transaction; *a*

12 entering into one of the customer service stations at least one initial product  
13 identifier which represents the at least one initial product indicated by the  
14 communications;

15 calculating an initial purchase total for the transaction using a first prices for the  
16 at least one initial product represented by the entered at least one initial product  
17 identifier;

18 subtracting the initial purchase total from a threshold purchase total to produce an  
19 additional amount;

20 displaying the additional amount on a monitor component of the one of the  
21 customer service stations into which the at least one initial product identifier was entered;  
22 and

23 communicating the additional amount to the customer during the telephone call.

1 31. A method according to claim 29, further comprising the steps of:

2 during the telephone call and after the communicating step, receiving further  
3 communications from the customer indicating at least one more product that the  
4 customer desires to purchase from the catalog;

5 entering into the one of the customer service stations at least one more product  
6 identifier which represents the at least one more product indicated by the further  
7 communications;

8 recalculating the initial purchase total for the transaction using a first price for the  
9 at least one product represented by the at least one more product identifier and a the first  
10 price for the initial product represented by the at least one initial product identifier;

11 determining whether the recalculated initial purchase total is at least equal to the  
12 threshold purchase total; and

13 if the recalculated initial purchase total is at least equal to the threshold purchase  
14 total, calculating a reduced purchase total for the transaction represented by all of the  
15 entered product identifiers based on second prices for the products.

32. A method of calculating a purchase total for a transaction, the method comprising  
the steps of:

3 receiving a plurality of product identifiers, each of the product identifiers  
4 representing a respective product to be purchased;

5 calculating an initial purchase total for the transaction based on respective first  
6 prices for each of the products to be purchased;

7 determining whether the initial purchase total is at least equal to a predetermined  
8 threshold purchase total; and

9 if the initial purchase total is at least equal to the predetermined threshold  
10 purchase total, calculating a reduced purchase total for the transaction based on  
11 respective second prices for each of the products to be purchased, at least one of the  
12 respective second prices being lower than the corresponding first price for the product to  
13 be purchase.

33. An apparatus for calculating a purchase total for a transaction, comprising:

a storage device;

a processor connected to the storage device;

the storage device storing a program for controlling the processor; and

the processor operative with the program to:

receive at least one product identifier, each of the at least one product



7 identifier representing a respective product to be purchased;  
8 calculate an initial purchase total for the transaction on the basis of a  
9 respective first price for each of the at least one products to be purchased;  
10 determine whether the initial purchase total is at least equal to a  
11 predetermined threshold purchase total; and  
12 if the initial purchase total is at least equal to the predetermined threshold  
13 purchase total, calculate a reduced purchase total for the transaction based on respective  
14 second prices for each of the at least one products to be purchased, at least one of the  
15 respective second prices being lower than the corresponding first price for the at least one  
16 products to be purchased

1 34. An apparatus according to claim 33, wherein the processor is included in a point  
2 of sale terminal.

1 35. An apparatus according to claim 33, further comprising a bar code reader  
2 connected to the point of sale terminal.

1 36. An apparatus according to claim 33, further comprising a server computer  
2 connected to the point of sale terminal, the server computer storing a database, the  
3 database including data indicative of the first and second prices.

1 37. An apparatus according to claim 33, wherein the point of sale terminal further  
2 includes display means connected to the processor, the processor further operative with  
3 the program to:

4 calculate, if the initial purchase total is not at least equal to the predetermined  
5 threshold purchase total, a difference between the initial purchase total and the  
6 predetermined threshold purchase total; and

7 cause the display means to display information indicative of the difference  
8 between the initial purchase total and the predetermined threshold purchase total.

1 38. An apparatus according to claim 33, wherein the processor is included in a  
2 customer service station in a catalog order-taking facility.

1 39. An apparatus for calculating a purchase total for a transaction, comprising:  
2 a storage device; and  
3 a processor connected to the storage device;  
4 the storage device storing a program for controlling the processor; and  
5 the processor operative with the program to:  
6 receive at least one product identifier, each of the at least one product  
7 identifiers representing a respective product to be purchased;  
8 determine whether the transaction satisfies a qualification criterion; and  
9 based on whether the transaction satisfies the qualification criterion, select  
10 between a first procedure for calculating the purchase total for the transaction and a  
11 second procedure for calculating the purchase total for the transaction, the first procedure  
12 including totaling respective first prices for each of the respective products to be  
13 purchased, the second procedure including totaling respective second prices for each of  
14 the respective products to be purchased, at least one of the respective second prices being  
15 lower than the corresponding first price for the respective product to be purchased.

1 40. The apparatus of claim 39, wherein the qualification criterion is selected from the  
2 group consisting of:  
3 (a) a purchase total for the transaction calculated according to the first  
4 procedure;  
5 (b) a purchase total for the transaction calculated according to the second  
6 procedure;  
7 (c) a sum of purchase totals for a plurality of transactions made during a first  
8 predetermined period of time by a customer who is requesting the transaction;  
9 (d) an average of purchase totals for a plurality of transactions made during a  
10 second predetermined period of time by the customer who is requesting the transaction;  
11 (e) a sum of purchase totals for a plurality of transactions made during a third  
12 predetermined period of time by a group of customers, one of whom is requesting the  
13 transaction;  
14 (f) an average of purchase totals for a plurality of transactions made during a  
15 fourth predetermined period of time by a group of customers, one of whom is requesting  
16 the transaction; and

17 (g) a total number of products having a particular brand among the products  
18 to be purchased represented by the received product identifiers.

1 41. A data storage device which stores a price database, the price database including  
2 a plurality of data entries, each of the data entries including:  
3 a product identifier for a product available for sale,  
4 a retail price for the product, and  
5 at least one discount price for the product, wherein each of the at least one  
6 discount prices has a corresponding threshold purchase total.

1 42. A data storage device according to claim 38, wherein each of the data entries  
2 includes two discount prices for the product, each of the two discount prices  
3 corresponding to a respective tier of discount prices.

1 43. A data storage device according to claim 41, which also stores a data table which  
2 associates the corresponding threshold purchase total with each of the tiers of discount  
3 prices.

1 44. A data storage device according to claim 41, wherein each of the data entries  
2 includes three discount prices for the product, each of the three discount prices  
3 corresponding to a respective tier of discount prices

1 45. A data storage device according to claim 41, wherein each of the data entries also  
2 includes a product description field.

1 46. A computer-readable medium that stores data accessible by a program executable  
2 on a data processing system, the data being organized according to a data structure that  
3 includes:  
4 a product identifier data object;  
5 a plurality of price data objects for the product identifier data object; and  
6 a respective condition data object for each price data object.

1 47. The computer-readable medium of claim 46, in which the respective condition  
2 data objects define mutually exclusive conditions.

1 48. The computer-readable medium of claim 46, in which the data is organized  
2 according to a data structure that includes:

- 3 a plurality of product identifier data objects;
- 4 a plurality of price data objects for each product identifier data object; and
- 5 a respective condition data object for each price data object.

1 49. A computer-readable medium that stores data accessible by a program executable  
2 on a data processing system, the data being organized according to a data structure that  
3 includes:

- 4 a plurality of product identifier data objects; *a*
- 5 a plurality of price data objects for each product identifier data object, and
- 6 a plurality of condition data objects, each condition data object corresponding to a  
7 respective subset of the price data objects, each respective subset of price data objects  
8 including one respective price data object for each of the plurality of product identifier  
9 data objects,

10 and in which for any product identifier data object, each price data object  
11 corresponds to one respective condition data object.

1 50. A computer-readable medium that stores data accessible by a program executable  
2 on a data processing system, the data being organized according to a data structure that  
3 includes:

- 4 a product identifier data object;
- 5 a plurality of price objects for the product identifier data object; and
- 6 a respective range data object for each price object.

1 51. The computer-readable medium of claim 50, in which the data is organized  
2 according to a data structure that includes:

- 3 a plurality of product identifier data objects;
- 4 a plurality of price data objects for each product identifier data object; and

5 a respective range data object for each price data object.

1 52. A data processing apparatus comprising:  
2 a processor; and  
3 the computer readable medium of claim 46.

1 53. A data processing apparatus comprising:  
2 a processor; and  
3 the computer readable medium of claim 46, the computer readable medium also  
4 storing a program operative to direct the processor to:  
5 retrieve a price data object in accordance with the product identifier data  
6 object and one condition data object.

1 54. A data processing apparatus comprising: *a*  
2 a processor; and  
3 the computer readable medium of claim 48, the computer readable medium also  
4 storing a program operative to direct the processor to:  
5 retrieve a price data object in accordance with one product identifier data  
6 object and one condition data object.

1 55. A data processing apparatus comprising:  
2 a processor; and  
3 a computer readable medium that stores  
4 a program, and  
5 data accessible by the program, the data being organized according to a  
6 data structure that includes:  
7 a product identifier data object;  
8 a plurality of price objects for the product identifier data object;  
9 and  
10 a respective range data object for each price object,  
11 in which the program is operative to direct the processor to perform the method of claim  
12 1.

1 56. A method of accessing data stored on the computer-readable medium of claim 51,  
2 the method comprising:  
3 receiving a plurality of product identifiers, each of the product identifiers  
4 representing a respective product to be purchased;  
5 retrieving a set of product identifier data objects, each corresponding to a  
6 respective one of the plurality of product identifiers;  
7 retrieving a first set of price data objects, the first set including a respective price  
8 data object for each of the retrieved product identifier data objects, each respective  
9 predetermined price data object corresponding to a range data object that encompasses a  
10 predetermined value;  
11 calculating an initial purchase total for the transaction based on the first set of  
12 price data objects;  
13 determining whether the initial purchase total is at least equal to a predetermined  
14 threshold; and  
15 if the initial purchase total is not less than the predetermined threshold,  
16 retrieving a second set of price data objects, the second set including a respective  
17 price data object for each of the retrieved product identifier data objects, each respective  
18 predetermined price data object corresponding to a range data object that encompasses  
19 the initial purchase total; and  
20 calculating a reduced purchase total for the transaction based on the second set of  
21 price data objects.

add  
A1